

Notice of Allowability

Application No.

10/017,572

Examiner

J. Derek Rutten

Applicant(s)

BURCH, CARL D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 7/1/05.
2. ☒ The allowed claim(s) is/are 1-20 and 25-31 (renumbered 1-27).
3. ☒ The drawings filed on 23 October 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



TUAN DAM
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

1. Acknowledgement is made of Applicant's amendment dated 1 July 2005, responding to the 19 April 2005 Office action provided in the rejection of claims 1-27, wherein claims 1, 2, 4, 6, 9, 11, 12, 14, 16, 17, and 19 have been amended, claims 21-24 have been canceled, and new claims 28-31 have been added. Claims 1-20 and 25-31 remain pending in the application and have been fully considered by the examiner.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dan McClure, Reg. 38,962 on 19 July 2005.

The application has been amended as follows:

BEGIN EXAMINER'S AMENDMENT

Please amend the claims as follows:

1. (Currently Amended) A method for optimizing compilation time of a program, the program including at least one block of code, said method comprising steps of:

generating, using a computer processor, a current hash value for a block of intermediate code in the program wherein ~~the~~ a prior hash value is associated with preexisting object code that corresponds to the block of intermediate code;

generating a current object file from the block of intermediate code when the current hash value for the block of intermediate code does not correspond to the prior hash value;

linking the generated current object file with other blocks of object code associated with the program if the current hash value for the block of intermediate code does not correspond to the prior hash value;

retrieving the preexisting object code when the current hash value for the block of intermediate code corresponds to the prior hash value; and

linking the preexisting object code with other blocks of object code associated with the program if the current hash value for the block of intermediate code corresponds to the prior hash value.

3. (Currently Amended) The method of claim 1, further comprising:

setting a scope of the at least one block of code.

4. (Currently amended) The method of claim 28, wherein the generating a hash value step further comprises:

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using a parameter in a hashing function to generate the hash value, wherein the parameter is selected from at least one of the group of a code stream, and a data stream.

5. (Currently Amended) The method of claim 1, further comprising the step of:
generating a notice when the current hash value is not equal to a prior hash value for the block of code.

6. (Currently amended) A system for optimizing compilation time of a program, the program including at least one block of code, comprising:

computer processor means for generating a hash value for a block of code in the program;
means for generating a current object file from ~~the~~ a block of intermediate code when ~~the~~ a current hash value for the block of intermediate code does not correspond to ~~the~~ a prior hash value;

means for linking the generated current object file with other blocks of object code associated with the program;

means for retrieving the preexisting object code when the current hash value for the block of intermediate code corresponds to the prior hash value; and

means for linking the preexisting object code with other blocks of object code associated with the program if the current hash value for the block of intermediate code corresponds to the prior hash value.

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7. (Currently Amended) The system of claim [[6]] 29, wherein the storing means further comprises:

means for allocating area for the generated hash value.

8. (Currently Amended) The system of claim 6, further comprising:

means for setting a scope of the at least one block of code.

11. (Currently amended) A computer readable medium for optimizing compilation time of a program, the program including at least one block of code, comprising:

logic executed on a computer processor for generating a hash value for a block of code in the program;

logic for generating a current object file from ~~the~~ a block of intermediate code when ~~the~~ a current hash value for the block of intermediate code does not correspond to ~~the~~ a prior hash value;

logic for linking the generated current object file with other blocks of object code associated with the program;

logic for retrieving the preexisting object code when the current hash value for the block of intermediate code corresponds to the prior hash value; and

logic for linking the preexisting object code with other blocks of object code associated with the program if the current hash value for the block of intermediate code corresponds to the prior hash value.

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13. (Currently Amended) The computer readable medium of claim 11, further comprising:

logic for setting a scope of the at least one block of code.

16. (Currently amended) A system for optimizing compilation time of a program, the program including at least one block of code, comprising:

a compiler that generates at least one block of code from the program; and

a compilation optimizer, wherein the compilation optimizer further comprises:

logic executed on a computer processor for generating a hash value for a block of code in the program;

logic that generates a current object file from the block of intermediate code when the current hash value for the block of intermediate code does not correspond to ~~the~~ a prior hash value;

logic that links the generated current object file with other blocks of object code associated with the program;

logic that retrieves the preexisting object code when the current hash value for the block of intermediate code corresponds to the prior hash value; and

logic that links the preexisting object code with other blocks of object code associated with the program if the current hash value for the block of intermediate code corresponds to the prior hash value.

18. (Currently Amended) The system of claim 6, wherein the compilation optimizer further comprises:

logic that sets a scope of the at least one block of code.

25. (Currently Amended) A method for compiling a program, comprising:
generating, using a computer processor, a current hash value for a block of intermediate code in the program;

comparing the current hash value with a prior hash value associated with preexisting object code that corresponds to the block of intermediate code;

linking the preexisting object code with other blocks of object code associated with the program when the current hash value corresponds to the prior hash value; and

when the current hash value for the block of intermediate code does not correspond to the prior hash value,

generating a current object file from the block of intermediate code when the current hash value for the block of intermediate code does not correspond to the prior hash value; and

linking the generated current object file with other blocks of object code associated with the program.

28. (Currently Amended) The method of claim 1, further comprising:
skipping optimization of the block of code if the current hash value equals a prior hash value; and

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storing the current hash value in the block of code if the current hash value is not equal to the prior hash value for the block of code.

END EXAMINER'S AMENDMENT

Allowable Subject Matter

3. Claims 1-20 and 25-31 are allowed.
4. The following is an examiner's statement of reasons for allowance: Independent claims 1, 6, 11, and 16 have been amended to include limitations found in independent claim 25. Claim 25 was previously indicated as being allowable in the prior Office Action mailed on 19 April 2005. Therefor, since all claims contain the limitations found in allowable claim 25, all pending claims are allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (571) 272-3703. The examiner can normally be reached on T-F 6:00 - 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jdr



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